



UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE
United States Patent and Trademark Office
Address: COMMISSIONER OF PATENTS AND TRADEMARKS
Washington, D.C. 20231
www.uspto.gov

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/954,947	09/18/2001	Josef Steininger	13322US01	8515

7590 04/10/2003

Dean D. Small
McAndrews, Held & Malloy, Ltd.
34th Floor
500 W. Madison Street
Chicago, IL 60661

EXAMINER

JUNG, WILLIAM C

ART UNIT	PAPER NUMBER
----------	--------------

3737

DATE MAILED: 04/10/2003

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary	Application No. 09/954,947	Applicant(s) <i>MT</i> STEININGER ET AL.	
	Examiner William Jung	Art Unit 3737	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status:

- 1) ☒ Responsive to communication(s) filed on 23 January 2003.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☐ Claim(s) _____ is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1, 2, 5-15, 17-22 and 25-32 is/are rejected.
- 7) ☒ Claim(s) 3, 4, 16, 23, 24 is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
- Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- 11) ☐ The proposed drawing correction filed on _____ is: a) ☐ approved b) ☐ disapproved by the Examiner.
- If approved, corrected drawings are required in reply to this Office action.
- 12) ☐ The oath or declaration is objected to by the Examiner.

Priority under 35 U.S.C. §§ 119 and 120

- 13) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- * See the attached detailed Office action for a list of the certified copies not received.
- 14) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application).
- a) ☐ The translation of the foreign language provisional application has been received.
- 15) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121.

Attachment(s)

- | | |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413) Paper No(s). _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO-1449) Paper No(s) _____ | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

Response to Arguments

1. Applicant's arguments with respect to claims 1-32 have been considered but are moot in view of the new ground(s) of rejection.

Claim Rejections - 35 USC § 112

2. The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

3. Claims 28, 29, and 32 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

Claims 28, 29, and 32 are method claims with limitation describing device/apparatus.

Claim Rejections - 35 USC § 102

4. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

5. Claims 1, 2, 9-15, 21, 22, and 30-32 are rejected under 35 U.S.C. 102(b) as being anticipated by *Cerofolini* (US 5,740,804).

Cerofolini anticipates all claimed invention in claims 1, 2, 9-15, 21, 22, and 30-32.

Cerofolini discloses of ultrasonic probe where the transducer array 12 transmitting and receiving ultrasound signal is placed in a housing or scanhead 2. The scanning assembly within the housing is designed to rotate pivotally mounted transducer array. The rotation of the transducer

array pivot is respect to the central plane and oblique scan lane when the transducer is rotated away from the central plane (shown in figure 4 where the transducer array is mounted on fix platform 42). The control of the rotation includes stepper motor 13 including gear and teeth and motor shaft. The panoramic scanning of the rotating device creates 3-D scan of the area of interest. The increment of the step motor is at a predetermined angle (col. 3, lines 22-48; col. 5, lines 18-36; col. 6, line 22 – col. 8, line 19).

Claim Rejections - 35 USC § 103

6. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

7. Claims 5-8, 17-20, and 25-28 are rejected under 35 U.S.C. 103(a) as being unpatentable over *Cerofolini* as applied to claims 1, 13, and 21 above, and further in view of *Angelsen* (US 4,757,818).

Cerofolini substantially disclose of all claimed invention in claims 5-8, 17-20, and 25-28. Angelsen discloses of an ultrasound probe where the transducer 230 is pivotally mounted within a housing 232 as shown in figure 2. The transducer array 230 pivots around a rotation shaft 226. The rotation of the transducer array 230 is controlled via motor 206 with motor shaft 228, which is connected to the rotation shaft 226 by a drive belt 210. The motor system controls the direction of the ultrasound transmission and reception relative to the central scan plane 14 as shown in figure 1 (col. 2, line 52-59; col. 3, line 64 – col. 4, line 52). Angelsen also discloses of position sensing device for sensing angular position of the transducer array with respect to

central scan plane as shown in figure 1 (col. 2, line 65-68). In addition, Angelsen discloses of centering device where the transducer array 230 is properly aligned with the central scan plane, which is achieved by magnetic sensing device (col. 3, line 33-52). Angelsen teaches that the rotation of the transducer can be align and control with position sensor. Angelsen method is based on controlling the rotational shaft. Thus, Angelsen's teaches that any rotating shaft either stepper motor or drive belt may be aligned and control with the position sensor described above. Therefore, it would have been obvious to one having an ordinary skill in the art at the time the invention was made to apply the teachings of Cerofolini to the teachings of Angelsen to achieve the claimed invention.

Claim Objections

8. Claims 3, 4, 16, 23, and 24 are objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.

Conclusion

9. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to William Jung whose telephone number is 703-605-4364. The examiner can normally be reached on Mon-Fri 8:30 AM to 5 PM.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Marvin Lateef can be reached on 703-305-3256. The fax phone numbers for the

Art Unit: 3737

organization where this application or proceeding is assigned are 703-308-0758 for regular communications and 703-308-0758 for After Final communications.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is 703-308-1148.

William Jung
Examiner
Art Unit 3737

WCJ
wcj
April 4, 2003

A handwritten signature in black ink, appearing to read 'M. Lateef', with a stylized flourish at the end.

Marvin M. Lateef
Supervisory Patent Examiner
Group 3700